

Response to Office Action
Dated July 10, 2007

REMARKS / DISCUSSION OF ISSUES

Claims 1-10, 12-18 and 20-26 are presently under consideration. Claims 1 and 22 are the independent claims. As no claims are amended, a listing of the claims is not provided under Rule 121.

Allowable Subject Matter

Applicants note with gratitude the indication of allowability of claims 11 and 19. At the present time Applicants defer presenting the subject matter of these claims in independent form.

Final Rejection Improper

In the Office Action dated January 4, 2007, claims 22-26 were listed as 'Withdrawn from Consideration' by the Examiner; and not discussed substantively in that Office Action. In the Response under Rule 111, Applicants questioned the propriety of the withdrawal; and pondered if the claims were improperly restricted as these claims have been pending since the filing of the application. Furthermore, the penultimate section of the January, 2007 Office Action indicates that the arguments proffered in support of patentability of claims 1-22 by Applicants are moot in view of a new grounds of rejection. Thus, not only were the claims not examined for patentable subject matter in the January 4, 2007 Office Action, but also it appears that arguments in support of patentability of claims 22-26 provided in the Response of October, 2006 were not considered.

Applicants respectfully submit that the present rejection is improperly made final. Applicants direct the Examiner to MPEP § 706.07, which states, inter alia: A

"Before final rejection is in order a clear issue should be developed between the examiner and applicant....[an] The examiner should never lose sight of the fact that in every case the applicant is entitled to a full and fair hearing, and that a clear issue between applicant and examiner should be developed, if possible, before appeal. However, it is to the interest of the applicants as a class as well as to that of the public

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that prosecution of an application be confined to as few actions as is consistent with a thorough consideration of its merits.”(Emphasis provided.)

The present Office Action does substantively consider claims 22-26. This rejection is essentially identical to the rejection of these claims as set forth in the rejection of August, 2006, the finality of which was withdrawn. Under normal circumstances, Applicants may not question the finality of the present rejection. However, because of the lapse in consideration of these claims in over one year of prosecution; because Applicants are just now re-apprised of the position; and because no response to Applicants previous arguments is provided, Applicants submit that the clarity of the issue between the Examiner and Applicant has been clouded, if not lost. To this end, rather than be afforded the opportunity to address the rejection in a timely manner, or consider the Examiner’s position based on a response to Applicants previously proffered position, Applicants were left to ponder what the status of the claims really was.

Thus, Applicants respectfully submit that equitable relief mandates that the present rejection be made non-final so that Applicants may be accorded a full and fair hearing and to the extent required, so that a clear issue(s) between Applicant and Examiner can be developed.

Rejections under 35 U.S.C. § 102

Claims 1-10, 12-16, 20 and 21 were rejected under 35 U.S.C. § 102(b) as being anticipated by *Bhuva, et al.* (U.S. Patent 5,612,713). For at least the reasons that follow, Applicants respectfully submit that this rejection is improper and should be withdrawn.

Applicants rely at least on the following standards with regard to proper rejections under 35 U.S.C. § 102. Notably, a proper rejection of a claim under 35 U.S.C. § 102 requires that a single prior art reference disclose each element of the claim. *See, e.g., W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983). Anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference. *See, e.g., In re Paulsen*, 30 F.3d 1475, 31 USPQ2d 1671 (Fed. Cir. 1994); *In re Spada*, 911 F.2d 705, 15 USPQ2d 1655 (Fed.

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Cir. 1990). Alternatively, anticipation requires that each and every element of the claimed invention be embodied in a single prior art device or practice. *See, e.g., Minnesota Min. & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992). For anticipation, there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention. *See, e.g., Scripps Clinic & Res. Found. v. Genentech, Inc.*, 927 F.2d 1565, 18 USPQ2d 1001 (Fed. Cir. 1991).

i. Claims 1-10, 12-18 and 20-21

Claim 1 is drawn to a spatial light modulator and features:

“...memory elements configured to store data therein and to shift data therebetween.”

An embodiment of a spatial light modulator is shown schematically in and described in connection with FIG. 9. The spatial light modulator (SLM) 110 is capable of moving data internally during a lithographic process. The SLM includes an array 900 of light modulation elements 210, each including a memory element 902 corresponding to at least a portion of the pixel drive circuit 250 of FIGS. 2A and 2B in communication with an associated pixel controller 904 that is at least partially responsible for controlling the state of a pixel defined by the light modulation element 210. In FIG. 9, each memory element 902 is a static memory element that includes an input line 906 and a forward access control element 908. In the example shown, the forward access control element 908 is a transistor having a forward access control line 910 that is operable to control the state of the forward access control element 908 during a shift forward operation. Each memory element 902 further includes a reverse access control element 912 having a reverse access control line 914 operable to control the state of the reverse access control element 912 during a shift reverse operation.

Applicants again submit that the reference to *Bhuvra, et al.* fails to disclose at least the noted feature of claim 1. The Office Action alleges that the memory elements 10a of the applied art are configured to store data therein and shift data therebetween and

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directs Applicants to column 4, lines 35-40 for support for this position. Applicants respectfully disagree. The mirror elements 10 of *Bhuva, et al.* have memory cells 10a that are loaded on a row-by-row basis. This loading is with shift registers 24 and latches 23. After the cells 10a are loaded that the mirror elements 10 addressed with address signals. Thus, the applied art discloses loading memory cells 10a via, inter alia, shift registers 24. (Kindly refer to column 4, lines 35-60 and Figs. 2 and 3 of the applied art.)

However, there is no disclosure in the applied art of *memory elements configured to store data therein and to shift data therebetween*. Rather, memory cells 10a are merely loaded in sequence via a flip flop 35 (Kindly refer to column 5, lines 6-16 of the applied art.)

Accordingly, and for at least the reasons set forth above, Applicants respectfully submit that the applied art fails to disclose at least one feature of claim 1. As such, the present rejection for anticipation is improper and should be withdrawn.

a. Allegation of inherency is improper

In the Office Action, the Examiner states:

8. **Applicant's arguments filed 4/10/07 have been fully considered but they are not persuasive. The applicant argues that the memory cells 10a are configured to "shift data therebetween" as recited in Claim 1. However, Bhuva discloses that the memory elements include shift register (24), which inherently shifts data therebetween (col. 4, lines 35-40).**

At the outset, it is unclear that to which the Examiner refers with the relative pronoun 'which' and its attendant adjective clause. If the Examiner alleges that the shift register inherently shifts data between itself, this is not that which is claimed. Thus, based on this interpretation of the statement above, the rejection is wholly improper. If however, the phrase is intended to mean that the shift register inherently shifts data from one memory cell, Applicants respectfully disagree. First, as noted above, there is no disclosure of shifting data from one memory cell 10a to another memory cell 10a.

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Second, there is no basis for the allegation of inherency. Notably, M.P.E.P. § 2112 IV provides that:

*EXAMINER MUST PROVIDE RATIONALE OR EVIDENCE TENDING
TO SHOW INHERENCY*

*The fact that a certain result or characteristic **may** occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. In re Rijckaert, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); In re Oelrich, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). **"To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' "** In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).*

(Emphasis Provided.)

Furthermore, a claim rejection must be based on objective evidence of record, and cannot be supported merely on subjective belief and unknown authority. See, e.g., M.P.E.P. § 2144.03; In re Lee, 277 F.3d at 1344-45, 61 USPQ2d at 1434-35 (Fed. Cir. 2002); In re Zerko, 258 F.3d at 1386, 59 USPQ2d at 1697.

No such concrete evidence has been provided by the Examiner here, nor did the Examiner submit an affidavit as required by 37 C.F.R. § 1.104(d)(2) if this proposed motive were based on facts within his personal knowledge (see M.P.E.P. § 2144.03). Applicants respectfully request that such an affidavit be provided if a rejection continues

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to be made without a citation of any objective evidence.

For at least the reasons set forth above, Applicants respectfully submit that the rejection of claim 1 is improper and should be withdrawn. Therefore, claim 1 is patentable over the applied art. Moreover, claims 2-10, 12-18 and 20-21, which depend from claim 1 directly or indirectly, are also improperly rejected and are patentable for at least the same reasons.

Rejections under 35 U.S.C. § 103

Claims 22-26 were rejected under 35 U.S.C. § 103(a) as being obvious in view of *Gale, et al.* (U.S. Patent 5,285,407) and JP 07-1777041 (cited by Examiner in earlier action). For at least the reasons that follow, Applicants respectfully submit that this rejection is improper and should be withdrawn.

At the outset, Applicants rely at least on the following standard of law as it relates to obviousness. Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. While the sequence of these questions might be reordered in any particular case, the factors continue to define the inquiry that controls. If a court, or patent examiner, conducts this analysis and concludes the claimed subject matter was obvious, the claim is invalid under § 103. *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727; 82 U.S.P.Q.2D 1385 (2007), citing, in part *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966).

The Court in *KSR* continued: "A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning. See *Graham*, 383 U.S., at 36, 86 S. Ct. 684, 15 L. Ed. 2d 545 (warning against a "temptation to read into the prior art the teachings of the invention in issue" and

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instructing courts to "guard against slipping into the use of hindsight" (quoting *Monroe Auto Equipment Co. v. Heckethorn Mfg. & Supply Co.*, 332 F.2d 406, 412 (CA6 1964))).”

i. Claims 22-26

Claim 22 is drawn to a method for performing photolithography and features:

“loading data representing an image into memory elements...[and] shifting the data between the memory elements...”

The Examiner directs Applicants to column 4, lines 7-11 and lines 17-24 for the alleged disclosure of the noted feature of shifting the data between the memory elements. While the noted portion does disclose the loading data in a shift register 12, and shifting the data to a latch circuit 13, there is ***no disclosure of shifting data between memory elements***. Rather, the data are loaded, latched and stored in rows sequentially; and data for the next row may be loaded into the shift register during the storing of a previous row. Therefore, the applied art fails to disclose at least one feature of claim 22 as alleged. Because at least one feature of claim 22 is not found in the applied art, a prima facie case of obviousness has not be made as to claim 22, and claim 22 is patentable over the applied art. In addition, claims 23-26 are patentable for at least the same reasons.

a. Foreign reference is improperly relied upon

The above notwithstanding, Applicants further submit that the rejection under 35 U.S.C. § 103(a) is believed to be improper for additional reasons. To wit, the rejection relies on a foreign document JP07-1777041. Applicants respectfully submit that the rejection is improper. A qualifying reference under this section of the Code must describe the invention in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent. The applied Japanese reference is a printed publication from a foreign country. However, the applied reference is in Japanese and is

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not translated into English. In order to rely on this reference in a rejection, a translation of this document must be obtained, and respectfully, Applicants submit that a U.S. application claiming priority from this reference does not qualify as such as translation. Applicants point to MPEP § 706.02 and submit that the requirements relating to foreign references with English language abstracts applies to the present rejection.

Accordingly, the rejection based on JP 07-1777041 of claims 22-26 is improper and should be withdrawn for at least the additional reasons presented.

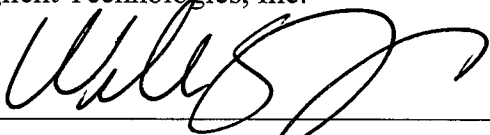
Conclusion

In view the foregoing, applicant(s) respectfully request(s) that the Examiner withdraw the objection(s) and/or rejection(s) of record, allow all the pending claims, and find the application in condition for allowance.

If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted on behalf of:

Agilent Technologies, Inc.



by: William S. Francos (Reg. No. 38,456)

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